

IN THE CLAIMS:

The following is a complete listing of the claims now pending. This listing replaces all earlier versions and listings of the claims.

Claim 1 (previously presented): An image search apparatus for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said apparatus comprising:

input means for inputting a search condition;

display means for displaying a plurality of image data obtained as a result of a search, corresponding to the search condition inputted by said input means, of the plurality of stored image data contained in the image database;

selection means for selecting image data, designated by a user, from the plurality of image data displayed by said display means as a result of the search;

image feature amount computing means for computing an image feature amount of the image data selected by said selection means; and

image similarity computing means for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing means and the image feature amounts of the plurality of stored image data stored in the image database.

Claims 2-5 (canceled)

Claim 6 (previously presented): An apparatus according to claim 1, wherein said display means comprises search means for searching for the desired image data by designating attribute information appended to the image data, and

wherein when a search is made by said search means, said display means displays a list of image data found by the search of said search means.

Claims 7-9 (canceled)

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Claim 10 (currently amended): An image search method for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said method comprising:

an input step of inputting a search condition;

a selection step of selecting image data, designated by a user, from a plurality of image data displayed as a search result obtained by a search, corresponding to the search condition inputted in said input step, obtained by a search of the plurality of stored image data contained in the image database;

an image feature amount computing step of computing an image feature amount of the image data selected in said selection step; and

an image similarity computing step, of computing image similarity on the basis of the image feature amount computed in said image feature amount computing step and the image feature amounts of the plurality of stored image data stored in the image database.

Claims 11-14 (canceled)

Claim 15 (previously presented): A method according to claim 10, further comprising:

DI a display step of displaying the plurality of image data obtained as a result of the search performed on the plurality of stored image data contained in the image database; and

a search step of searching for the desired image data by designating attribute information appended to the image data,

wherein the display step includes a step of displaying a list of image data obtained as a result of the search performed in said search step.

Claims 16-18 (canceled)

Claim 19 (previously presented): A computer readable memory that stores a program of an image search method for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said program comprising:

program code for inputting a search condition;

program code for selecting image data, designated by a user, from a plurality of image data displayed as a search result obtained by a search, corresponding to the search condition inputted by said input program code, of the plurality of stored image data from the image database;

program code for computing an image feature amount of the image data selected by said selection program code; and

program code for computing image similarity on the basis of the image feature amount computed by said image feature amount computing program code and the image feature amounts of the plurality of stored image data stored in the image database.

D1 Claim 20 (previously presented): An image search apparatus for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said apparatus comprising:

input means for inputting handwritten information;

display means for displaying a plurality of image data obtained as a result of a search of the plurality of stored image data in the image database, the plurality of stored image data being searched on the basis of the handwritten information inputted by said input means;

selection means for selecting color information of image data designated by a user from the plurality of image data displayed by said display means as a result of the search;

image feature amount computing means for computing an image feature amount of an image drawn in a drawing area, including the color information of the image data selected by said selection means; and

image similarity computing means for computing an image similarity on the basis of the image feature amount computed by said image feature amount

computing means and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 21 (previously presented): An apparatus according to claim 20, wherein the color information of the image data is selected by said selection means by indicating one pixel in the image data.

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Claim 22 (previously presented): An apparatus according to claim 20, wherein the color information of the image data is selected by said selection means by indicating a predetermined region in the image data.

Claim 23 (previously presented): An apparatus according to claim 22, wherein the color information of the image data selected by indicating the predetermined region in the image data by said selection means is an average value of pixel values contained in a small region.

Claims 24 and 25 (canceled)

Claim 26 (previously presented): An apparatus according to claim 20, wherein the color information of the image data selected by said selection means is selected on the basis of an image drawn on the drawing area.

Claim 27 (previously presented): An apparatus according to claim 20, wherein said image feature amount computing means computes the image feature amount of the drawn image each time the image in the drawing area is modified.

Claim 28 (previously presented): An apparatus according to claim 20, further comprising display control means for controlling a display of the drawing area within a display window displayed by said display means.

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Claim 29 (previously presented): An image search method for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said method comprising:

an input step of inputting handwritten information;

a selection step of selecting color information of image data, designated by a user, from a plurality of image data displayed as a search result obtained by a search of the plurality of stored image data in the image database, wherein the search being performed on the basis of the handwritten information inputted in said input step;

an image feature amount computing step of computing an image feature amount of an image drawn in a drawing area, including the color information of the image data selected in said selection step; and

an image similarity computing step of computing an image similarity on the basis of the image feature amount computed in the image feature amount computing step and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 30 (previously presented): A method according to claim 29, wherein the color information of the image data selected in said selection step is selected by indicating one pixel in the image data.

① Claim 31 (previously presented): A method according to claim 29, wherein the color information of the image data selected in said selection step is selected by indicating a predetermined region in the image data.

Claim 32 (previously presented): A method according to claim 31, wherein the color information of the image data obtained by indicating the predetermined region in said selection step is an average value of pixel values contained in a small region.

Claims 33 and 34 (canceled)

Claim 35 (previously presented): A method according to claim 29, wherein the color information of the image data selected in said selection step is selected on the basis of an image drawn in the drawing area.

Claim 36 (previously presented): A method according to claim 29, wherein the image feature amount computing step includes a step of computing the image feature amount of the drawn image every time the image in the drawing area is modified.

Claim 37 (previously presented): A method according to claim 29, further comprising:

a display step of displaying the plurality of image data obtained from a search of the plurality of stored image data stored in the image database; and

a display control step, of controlling to display the drawing area within a display window displayed in said display step.

D1 Claim 38 (previously presented): A computer readable memory that stores a program of an image search method for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said program comprising:

program code for inputting handwritten information;


program code for selecting color information of image data, designated by a user, from a plurality of displayed image data obtained by a search of the plurality of stored image data stored in the image database, wherein the search being performed on the basis of the handwritten information inputted by said input program code;

program code for computing an image feature amount of an image drawn in a drawing area, including color information of the image data selected by said selection program code; and

program code for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing program code

and the image feature amounts of the plurality of stored image data stored in the image database.

Claims 39-49 (canceled)

 Claim 50 (previously presented): An apparatus according to claim 1,
wherein the image data selected by said selection means is copied in
a drawing area, and

wherein said image similarity computing means computes the image similarity on the basis of an image feature amount, computed by said image feature amount computing means, of the image data copied in the drawing area and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 51 (previously presented): An apparatus according to claim 50,
further comprising modifying means for modifying the image data copied in the drawing area,

wherein said image similarity computing means computes the image similarity on the basis of an image feature amount, computed by said image feature amount computing means, of the image data modified by said modifying means and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 52 (previously presented): An apparatus according to claim 1,
wherein the plurality of image data displayed by said display means is displayed on the basis of the image similarity computed by said image similarity computing means.

Claim 53 (previously presented): An apparatus according to claim 50, wherein the drawing area and the plurality of image data are displayed in the same window.

Claim 54 (canceled)

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Claim 55 (previously presented): An image search apparatus for searching an image database for desired image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said apparatus comprising:

an input device for inputting a search condition;

a selector for selecting image data, designated by a user, from image data displayed as a result of a search, corresponding to the search condition input by said input device, of the plurality of stored image data from the image database;

an image feature amount computer for computing an image feature amount of the image data selected by said selector; and

an image similarity computer for computing an image similarity on the basis of the image feature amount computed by said image feature amount computer and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 56 (previously presented): A program for controlling an image search apparatus for searching an image database for desired image data, said image database containing a plurality of stored image data in correspondence with image feature

amounts for each of the plurality of stored image data stored in the image database, said program comprising:

program code for receiving an input search condition;

program code for selecting image data, designated by a user, from a plurality of image data displayed as a result of a search, corresponding to the input search condition, of the plurality of stored image data from the image database;

program code for computing an image feature amount of the image data selected by said selection step program code; and

program code for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing program code and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 57 (new): An image search apparatus for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said apparatus comprising:

receiving means for receiving a search condition;

display control means for controlling to display a plurality of image data obtained as a result of a search, corresponding to the search condition received by said receiving means, of the plurality of stored image data contained in the image database;

selection means for selecting image data, designated by a user, from the plurality of image data displayed by said display means as a result of the search;

image feature amount obtaining means for obtaining an image
feature amount of the image data selected by said selection means; and
image similarity computing means for computing an image
similarity on the basis of the image feature amount obtained by said image feature amount
obtaining means and the image feature amounts of the plurality of stored image data stored
in the image database.



Claim 58 (new): An image search method for searching an image database
for image data, the image database containing a plurality of stored image data in
correspondence with image feature amounts for each image data of the plurality of stored
image data stored in the image database, said apparatus comprising:

a receiving step of receiving a search condition;

a selection step of selecting image data, designated by a user, from a
plurality of image data displayed as a search result obtained by a search, corresponding to
the search condition received in said receive step, obtained by a search of the plurality of
stored image data contained in the image database;

an image feature amount obtaining step of obtaining an image
feature amount of the image data selected by said selection means; and

an image similarity computing step of computing image similarity
on the basis of the image feature amount obtained in said image feature amount obtaining
step and the image feature amounts of the plurality of stored image data stored in the image
database.

Claim 59 (new): A computer readable memory for storing a program executing an image search method for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said program comprising:

program code for receiving a search condition;

DI program code for selecting image data, designated by a user, from a plurality of image data displayed as a search result obtained by a search, corresponding to the search condition received by said receive program code, of the plurality of stored image data from the image database;

program code for obtaining an image feature amount of the image data selected by said selection program code; and

program code for computing image similarity on the basis of the image feature amount obtained in said image feature amount obtaining program code and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 60 (new): An image search apparatus for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said apparatus comprising:

receiving means for receiving handwritten information;

display control means for controlling to display a plurality of image data obtained as a result of a search of the plurality of stored image data in the image

database, the plurality of stored image data being searched on the basis of the handwritten information inputted by said input means;

selection means for selecting color information of image data designated by a user from the plurality of image data displayed by said display control means as a result of the search;

image feature amount computing means for computing an image feature amount of an image drawn in a drawing area, including the color information of the image data selected by said selection means; and

image similarity computing means for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing means, and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 61 (new): An image search method for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said method comprising:

a receiving step of receiving handwritten information;

a selection step of selecting color information of image data, designated by a user, from a plurality of image data displayed as a search result obtained by a search of the plurality of stored image data in the image database, wherein the search being performed on the basis the handwritten information received in said receive step;

an image feature amount computing step of computing an image feature amount of an image drawn in a drawing area, including the color information of the image data selected in said selection step; and

an image similarity computing step of computing an image similarity on the basis of the image feature amount computed in the image feature amount computing step and the image feature amounts of the plurality of stored image data stored in the image database.

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Claim 62 (new): A computer readable memory for storing a program executing an image search method for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each image data of the plurality of stored image data stored in the image database, said program comprising:

program code for receiving handwritten information;

program code for selecting color information of image data, designated by a user, from a plurality of displayed image data obtained by a search of the plurality of stored image data stored in the image database, wherein the search being performed on the basis of the handwritten information received by said receiving program code;

program code for computing an image feature amount of an image drawn in a drawing area, including color information of the image data selected by said selection program code; and

program code for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing program code

and the image feature amounts of the plurality of stored image data stored in the image database.

Claim 63 (new): A program code for controlling an image search apparatus for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each of the plurality of stored image data stored in the image database, said program comprising:

program code for receiving an search condition;

program code for selecting image data, designated by a user, from a plurality of image data displayed as a result of a search, corresponding to the search condition, of the plurality of stored image data from the image database;

program code for obtaining an image feature amount of the image data selected by said selection step program code; and

program code for computing an image similarity on the basis of the image feature amount computed by said image feature amount computing program code and the image feature amounts of the plurality of stored image data stored in the image database;

Claim 64 (new): A program code for controlling an image search apparatus for searching an image database for image data, the image database containing a plurality of stored image data in correspondence with image feature amounts for each of the plurality of stored image data stored in the image database, said program comprising:

program code for receiving handwritten information;

program code for selecting color information of image data,
designated by a user, from a plurality of displayed image data obtained by a search of the
plurality of stored image data stored in the image database, wherein the search being
performed on the basis of the handwritten information received by said receive program
code;

program code for computing an image feature amount of an image
drawn in a drawing area, including color information of the image data selected by said
selection program code; and

program code for computing an image similarity on the basis of the
image feature amount computed by said image feature amount computing program code
and the image feature amounts of the plurality of stored image data stored in the image
database.
